

Glucose Cysteine HiVeg™ Agar Base w/Thiamine**MV433**

Glucose Cysteine HiVeg Agar Base w/Thiamine is used with addition of blood for cultivation and enumeration of *Francisella tularensis* (*Pasteurella tularensis*).

Composition :**

Ingredients	Grams/Litre
HiVeg peptone No.1	3.0
Papaic digest of soyabean meal	10.0
Sodium chloride	5.0
Cysteine hydrochloride	1.0
Dextrose	25.0
Thiamine	0.0005
Agar	14.0

Final pH at (25°C) 6.9 ± 0.2

** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 58 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add sterile 4 - 5% defibrinated rabbit blood.

Principle and Interpretation :

Glucose Cysteine HiVeg Agar Base w/Thiamine is prepared by using HiVeg peptone No. 1 which is free from BSE/TSE associated risks. Glucose Cysteine HiVeg Agar Base w/ Thiamine is the modification of Glucose Cysteine Agar Base w/ Thiamine which when supplemented with blood is recommended for cultivation and enumeration of fastidious *Francisella tularensis* (*Pasteurella tularensis*) (1). *Pasteurella* species cannot be cultured on ordinary medium since they require a complex medium containing blood, Thiamine and Cystine (2, 3). Minute droplet like colonies develop in 48 hours. HiVeg peptone No.1 and Papaic digest of soyabean meal provide essential growth nutrients. Dextrose is the fermentable carbohydrate and sodium chloride maintains the osmotic balance.

Quality Control :**Appearance**

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Product Profile :

Vegetable based (Code MV)®	Animal based (Code M)
MV433 HiVeg peptone No. 1	M433 Meat peptone

Recommended for : Cultivation and enumeration of *Francisella tularensis*

Reconstitution : 58.0 g/l

Quantity on preparation (500g) : 8.62 L

(100g) : 1.72 L

pH (25°C) : 6.9 ± 0.2

Supplement : Difibrinated rabbit blood

Sterilization : 121°C / 15 minutes.

Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

Gelling

Firm, comparable with 1.4% Agar gel.

Colour and Clarity

Light amber coloured clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 5.8% w/v aqueous solution is 6.9 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours with 10% Carbon dioxide (CO₂).

Organisms (ATCC)	Growth
<i>Francisella tularensis</i> (29684)	luxuriant

References :

- Ronald M. Atlas (2004), Handbook of Microbiological Media, Lawrence C. Parks (ed.), 3rd Edition, CRC Press, p. No. 717.
- Collee, J.G., Marmin, B.P., Fraser, A.G. and Simmons A (eds) Mackie and McCartney Practical Medical Microbiology (1996) ,14th edition, Churchill Livingstone, New York.
- Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, 2004, 5th edition, OIE World Organisation for Animal Health.